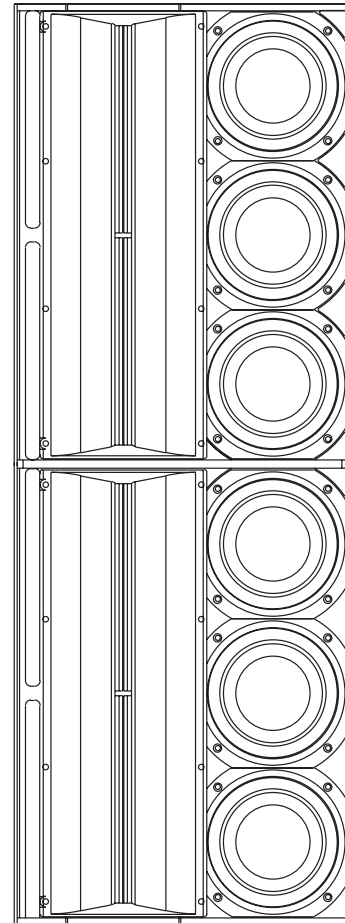


preliminary technical specifications QR36

general

- RBN1801 pro-ribbon HF drivers with exceptional intelligibility and very high SPL output
- All Neodymium drivers for excellent performance-to-weight ratio
- Modular, up to 10 units QR36 can be flown above each other (stack 2 units QR36)
- SIS pre-wired for very high damping and further reduced distortion (with ALC)
- Extended headroom/SPL and protection in combination with SDP modules (with ALC)
- Passive filtering for easy operation and economical powering



description

The QR36 is a modular 2-way column array loud-speaker, for both portable and permanent applications, in flown or stacked configuration. Featuring the RBN1801 pro-ribbon driver (patents pending) mounted on a HempHorn™, the QR-systems are ideal for applications where high output, high quality reinforcement is needed with excellent coverage control and intelligibility over longer distances.

As an “array of line-sources”, a QR system acts as true cylindrical radiator, offering a 3dB SPL drop-off per doubling of distance (in the “near-field” or “Fresnel-zone”). This brings significant advantages in SPL coverage and (intelligibility) throw, from a relatively simple system.

When used in multiples, the QR’s form a continuous line-source, extending the “nearfield” of the system over longer distance and lower frequencies.

The specific spacing of the sources (within half of wavelength) and the frontal radiation of more than 90% makes the QR-systems compliant with the two most important (and most difficult to realise!) line-array criteria. The result is a “main lobe” without side-lobes (“spikes”), above and below the array, preventing ceiling reflections and offering unusually high “gain-before-feedback”.

high-power ribbon technology

Main component of the QR-series is the truly unique RBN1801 pro-ribbon driver; An 18" flat-Isophase ribbon-driver with a 110dB efficiency (1W/1m. with 90-degree waveguide). The previously unknown efficiency, combined with an enormous system peak power handling of 3000W., brings an SPLmax. of 150dB in the QR36 system for a virtually "infinite" headroom from 1000Hz. up to 20kHz.

As the RBN1801 is a true line-source, vertical dispersion narrows with frequency increase; 13° @4kHz. up to 3° @20kHz. By this, a sharp-edged "listening window" is realised; Contrary to a point-source, the sound doesn't propagate with a (vertical) dispersion angle (with a relative coverage, becoming larger further away from the source), but the height of the system is the actual, absolute coverage (less distance dependent). For more vertical coverage, just add more columns.

Together with the real-90 horizontal dispersion, the QR-series offers a high constant directivity over a wide frequency range.

Besides the physical behavior of the RBN1801 driver, the famous "ribbon-known" transient-response and flat impedance (completely resistive amp.load) offer a sound experience that surpasses high-end HiFi-standards.

The QR-systems feature integrated flying braces for simple, yet effective column mounting. The QR systems can also be stacked (QR36 max. 2 units).

As all Alcons cabinets, the QR-systems are finished in Durotect™, a scratch-resistant coating.

Signal Integrity Sensing™

The system includes dedicated filtering, but system equalizing is done remotely (electronically) fully utilizing the individual speaker components' efficiency. This prevents the massive headroom SPL to be limited by the passive filter.

The SIS pre-wiring ensures complete cable/connector compensation between QR and ALC, regardless of length. In this way, the ALC can be loaded down to 2 ohms, without any sacrifice on response quality (2 units QR36 parallel on one channel loads 3 ohms).

Typical applications for the QR-systems include main system for theatre (multiples in high theatres for on-axis response on every height), PA in "acoustically challenging rooms", as well as high power side-fill stage monitoring.

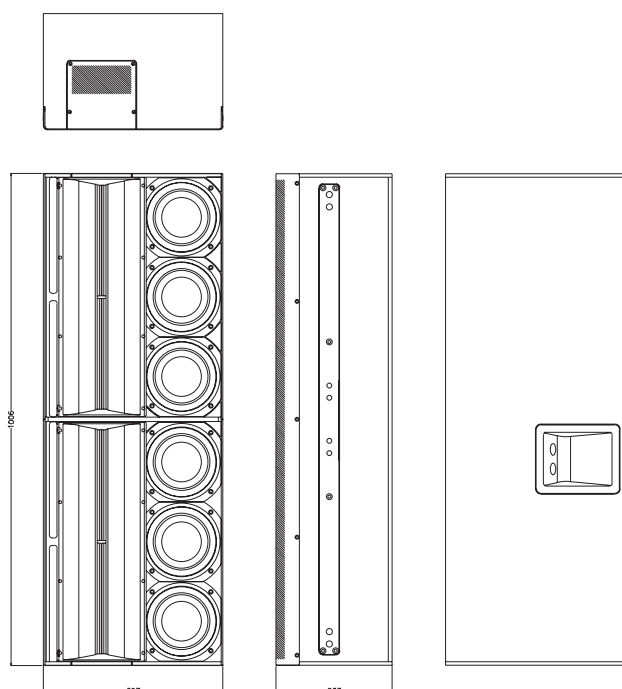
In applications where extended bass response is required, the QR-systems can be combined with a pressure-bass or deep-sub system.

dedicated controlling / powering

For full system performance, we recommend using the QR-series in combination with an ALC4 controller-amplifier. Driven by the ALC, the QR-systems deliver maximum sound quality with a preserved headroom, under dedicated equalisation and inaudible (power and excursion) protection (SDP circuit).

The QR-series currently consists of the QR18, with a length of 0,5m, featuring 3x 6.5" Neodymium and 1x RBN1801 on 90-degree HempHorn™ and the QR36, with a length of 1m., featuring 6x 6.5" Neodymium and 2x RBN1801 on 90-degree HempHorn™. Both systems are also available with 120-degree HempHorn™ for ultra-wide coverage.

dimensional drawings



technical specifications

Frequency Response	
+/- 3 dB	74 Hz - 20.000 Hz
+/- 10 dB	53 Hz -
Sensitivity (SPL 1W/M)	100 dB
Nominal Impedance	2,7 ohms
Maximum RMS power (AES)	780 W
Maximum peak power (AES)	6000 W
SPL program (nom.)	129 dB
SPL peak (nom.)	150 dB
Dispersion H x V	90° x array length dep.

physical specifications

System	2-way, full-range	
Filtering	passive	
Drivers LF	6 x AND65/16 neodymium 6.5", vented	
Drivers HF	2 x RBN1801 18" pro-ribbon driver	
Cross-over frequency	1200 Hz.	
Connectors	2 x Speakon NL4 input / link	
Physical dimensions	mm	inches
Height	1006	39,6
Width	367	14,4
Depth	237	9,3
Weight (approx.)	37 kg	81 lb
Warranty	6 years limited	

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